## Message

From: Finn, Molly [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6B5BA36736AB49798848010DD267E4EB-MFINN002]

**Sent**: 6/30/2022 3:09:58 PM

To: Jacob Runge [RungeJ@michigan.gov]
Subject: RE: discussion topics for 6/30 basf call

I just saw your out of office – I'll add your folks to the invite

From: Finn, Molly

Sent: Thursday, June 30, 2022 9:55 AM

**To:** Runge, Jacob (EGLE) <RungeJ@michigan.gov> **Subject:** RE: discussion topics for 6/30 basf call

Great! Lets do 1-2 on the 13th. I'll send an invite to you and then can you fwd to your folks?

From: Runge, Jacob (EGLE) < RungeJ@michigan.gov>

**Sent:** Thursday, June 30, 2022 8:39 AM **To:** Finn, Molly <a href="mailto:Finn.Molly@epa.gov">Finn.Molly@epa.gov</a>

Subject: RE: discussion topics for 6/30 basf call

Lets shoot for July 13, either 9-10 or 1-2!

From: Finn, Molly < Finn. Molly @epa.gov > Sent: Thursday, June 30, 2022 9:35 AM

**To:** Runge, Jacob (EGLE) < Rungel@michigan.gov > **Subject:** RE: discussion topics for 6/30 basf call

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Hi Jacob – here are some possibilities for an EPA/EGLE call to discuss near-term actions. (times are in central). Any of those work for you and your team?

July 12<sup>th</sup>: 9:30-12, 3:30-4:30 July 13<sup>th</sup>: 9-10, 11-12, 1-2, 3-4

July 14<sup>th</sup>: 9-11, 3-4:30 July 19<sup>th</sup>: 11-12, 3-4:30 July 20<sup>th</sup>: 9-12, 3-4

From: Runge, Jacob (EGLE) < RungeJ@michigan.gov >

Sent: Wednesday, June 29, 2022 2:42 PM

To: Finn, Molly <Finn.Molly@epa.gov>; ErberN <ErberN@michigan.gov>; Voisin, Valerie <Voisin.Valerie@epa.gov>;

Ostaszewski, Arthur (EGLE) <ostaszewskia@michigan.gov>

Cc: Dale Bridgford <BRIDGFORDD@michigan.gov>; ConfortiR@michigan.gov; Kimberly Tyson <tysonk@michigan.gov>;

Patel, Shilpa <patel.shilpa@epa.gov>

Subject: RE: discussion topics for 6/30 basf call

Good afternoon, Molly,

Nice tentative agenda/list of topics for discussion – I think (sans "interim interim measures") it covers a little bit of everything. I do have a couple of additions, which I've listed below:

- 1. EGLE is still waiting on the March 2021 Facility GSI perimeter data from the facility. EGLE splits were delivered mid-April.
- 2. What is the status of a perimeter GSI monitoring "plan" moving forward? EGLE had sent a letter calling for semi-annual monitoring at specific locations in December 2020, and BASF worked a response into our May 2021 monthly meeting (see the slide below). Because of the alignment in the current RD Work Plan and that letter, we agreed that the RD Work Plan sampling could cover our ask in the near-term, but these sampling events weren't indefinite.

In terms of more regulator-to-regulator conversations, send over availability for the week of July 11 or beyond; I'm gone the remainder of this week and next week but cc'd people have access to my calendar. It's my understanding that there was near-term action language shared at the monthly EPA corrective action meeting this past Monday; I am not on these meetings, not sure if you are or aren't. It was developed to add to your summary of our June 15 meeting you shared Thursday, June 23:

- 1. BASF final remedy eliminates the venting of site groundwater with contaminant concentrations above Michigan's generic GSI criteria to the Detroit River.
- 2. The 30% percent design submittal shall include an IM proposal that includes the following:
  - i. BASF will identify monitor wells, test wells, piezometers, etc., where Rule 57 Water Quality Standards Final Acute Value (FAV) exceedances were found at any of these points sampled since the perimeter monitoring program was initiated in June 2021 to come into compliance with Rule R299.9629(7) of the administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.
  - ii. Also identify points with PFOS concentrations exceeding 11 ng/L that are not co-located with FAV exceedances. Additionally, identify points where pH exceeded 12.5 Standard Units as it exhibits characteristics of a hazardous waste.
    - a. At these locations, intercept groundwater and prevent its discharge to the Detroit River. Interception options install appropriately sized purge wells capable of capturing contaminated groundwater, construct trenches to collect the groundwater, or employ construction dewatering methods.
    - b. Extracted groundwater must be treated or disposed based on its characterization.
    - c. Purge wells or collection trenches to be installed and operational by December 30, 2022.
    - d. Groundwater monitoring and hydraulic head measurements that demonstrate effective of the IM.

Cheers,

## Jacob Runge

## **Environmental Engineer**

Materials Management Division Michigan Department of Environment, Great Lakes, and Energy 517-242-8496

From: Finn, Molly < Finn. Molly @epa.gov > Sent: Wednesday, June 29, 2022 1:45 PM

**To:** Runge, Jacob (EGLE) < RungeJ@michigan.gov >; Erber, Nathan (EGLE) < ErberN@michigan.gov >; Voisin, Valerie < Voisin.Valerie@epa.gov >; Ostaszewski, Arthur (EGLE) < OSTASZEWSKIA@michigan.gov >

Cc: Bridgford, Dale (EGLE) <<u>BRIDGFORDD@michigan.gov</u>>; Conforti, Rich (EGLE) <<u>CONFORTIR@michigan.gov</u>>; Tyson,

Subject: discussion topics for 6/30 basf call

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Hi folks,

In the BASF call tomorrow, we would like to discuss current project progress and continue performance criteria discussion. I think we need more regulator to regulator discussion on the details of any near-term request, so would like to hold off on discussing any details of that in tomorrow's call with BASF.

I've included below more detail of what I'd like to discuss tomorrow- I welcome any additional input or thoughts you have on this.

- In order to design a remedy to meet the programmatic needs, I think we would be best served to establish what our cleanup objectives are. I'd like to discuss this with EGLE and BASF. Pulling from the <u>RCRAFirst, Tool 7</u>
  - o The corrective action objectives (CAOs) should specify:
    - The contaminant(s) of concern
    - The exposure route(s) and receptor(s)
    - An acceptable contaminant level or range of levels for each exposure route
  - Potential exposure routes
    - Groundwater
      - Human Health:
      - Ecological:
    - Soil
      - Human Health:
      - Ecological:
    - Sediment
      - Human Health:
      - Ecological:
    - Surface Water
      - Human Health:
      - Ecological:
- Regulatory criteria
  - O Appendix F of the approved workplans from 2020 provides a regulatory schematic of what applied to this project. I think it would be helpful to walk through that with BASF and make sure we are all clear on what their regulatory obligations and options are as of today. This can highlight the elimination of the mixing zone option, and re-iterate the criteria they will have to meet. This ties into the CAO discussion above.
- Based on the last meeting notes, BASF identified performance objectives that include the following:

Proposed Performance Objectives	
Barrier Wall Design	Design new barrier walls to very low hydraulic conductive standards
	Inspect existing sheet pile wall and seal/repair as necessary
Hydraulic Performance	Prevent flooding behind barrier walls
	Maintain extraction flow rate approximately equal to total groundwater flux

Treatment performance	Meet discharge limits determined by local POTW permit

- Potential Hydraulic performance monitoring
  - Piezometers installed at intervals along each trench used to measure groundwater elevation adjacent to drain.
    - Should reflect a GW level similar to the target drain elevation that results in flow rate the prevents flooding of the Site
    - A high piezometer level would suggest a blockage and required maintenance (e.g., jetting), vertical well development or a pump issue
    - Groundwater elevations would be measured on a routine basis
  - o Piezometer levels compared to Detroit River stilling well data to evaluate hydraulic isolation
    - Evidence of seiching or fluctuation in trench piezometers would suggest river infiltration
    - River stage measurements would be measured at the same time piezometer elevations are measured
  - Total extraction rate would be monitored for seasonal variation and establishment of a baseline for future operation with the objective of preventing flooding of the Site
- I'd like to use the time on the call to dig into these more. What do we think of this proposal? What is missing? What more is needed? We can use time tomorrow to talk with BASF where we have questions or concerns about this. Here are a few initial questions we have; do you have others?
  - o Performance objective for barrier wall is to prevent GW above GSI criteria from migrating off-site
    - How will they monitor for that?
  - We know there is hydraulic connection between the existing sheetpile sea wall and the river. What is the long-term effectiveness of sealing/repairing those areas. Can gw go under the wall?
  - O What is the plan for the sediment?
  - For area of slurry wall discuss more details; how deep, how to design for seasonal fluctuation and prevent cracks over time; how to monitor performance over time

How does this sound? Is there anything else you want to add?

Thanks, Molly

Molly Finn Environmental Engineer US EPA, Region 5 312-886-6173